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Inventory Management System

C# Source Code

Learning Aim A – Code Analysis

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```
using System;
using System.IO;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace BTECUnit4CSHARP
{
    class SampleProgram
    {
        static void Main(string[] args)
        {
            //load up the inventory manager
            InventoryManager m = new InventoryManager();
            do
            {
              m.RunProgram();
            } while (true);

            Console.ReadLine();

        }
    }
```

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```
class InventoryManager
    {
        //the list of inventory items
        public InventoryItem[] inventory;
        //the first row of the file data - used for saving and loading
        public string[] headerRow;
        //used to get the new ID to save
        public int newInventoryID = 0;
        //a set of constants for the stock level data
        public const int MAX_STOCK_LEVEL = 90;
        public const int MIN_STOCK_LEVEL = 10;
        public const int REORDER_THRESHOLD = 50;

        //a set of constants containing the location of our files.
        public const string INVENTORY_FILE = "InventoryData.txt";
        public const string ERROR_LOG_FILE = "ErrorLog.txt";

        /// <summary>
        /// record that contains the dat for each inventory item
        /// </summary>
        public struct InventoryItem
        {
            public int ID;
            public string Name;
            public string Category;
            public string Status;
            public int StockLevel;
        }

        /// <summary>
        /// the main entry point to the program.
        /// </summary>
        public void RunProgram()
        {
            try
            {
                //load the inventory data
                LoadInventoryData();

                //display the main menu.
                MainMenu();
            }
            catch(Exception ex)
            {
                Console.WriteLine($"The following error has occurred: {ex.Message}");
                Console.WriteLine("Please contact your system administrator.");
                LogError(ex, "There was an error in Load Inventory Data");
                Proceed();
            }
        }
```

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